## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:	) CERTIFICATE OF MAILING BY "EXPRESS MAIL"
Shougo TSUKADA, et al.	) )     "Express Mail" Mailing Label : <u>EL845498931US                                    </u>
	) Date of Deposit <u>January 3, 2002</u>
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Examiner:	) and Trademark Office, P.O. Box 2327, Arlington, VA ) 22202
Art Unit:	) NAME Yue Kua~  (TYPED OR PRINTED)
For: PHOTOCATALYTIC FILTER	SIGNATURE you so P
	DATE: January 3, 2002
Commissioner for Patents Washington, D.C. 20231	

## **PRELIMINARY AMENDMENT**

Dear Sir:

Please enter the following Preliminary Amendment in the above-identified patent application prior to substantive examination.

## **IN THE CLAIMS**:

Please cancel Claims 1-14.

Please add the following new claims 15-18.

- --15 (New). A gas processing apparatus for processing gas, comprising:
- a) a filter bundling a plurality of photocatalyst fibers;
  each said fibers having a light guiding member and a photocatalyst layer;
  said light guiding member forming a plurality of protrusions on an outer surface thereof;

said photocatalyst layer having a refractive index higher than that of said light guiding member and being coated on said outer surface and said plurality of protrusions;

said plurality of photocatalyst fibers being aligned with each of longitudinal end surfaces being arranged in the same plane so as to form a plurality of paths between each adjacent photocatalyst fibers which correspond to each shape of said plurality of protrusions; and

b) a ventilation member adapted to cover said filter for allowing a fluid to be filtered to pass through said paths,

wherein an ultraviolet ray introduced into said plurality of photocatalyst fibers from at least one of said longitudinal end surfaces leaks out into said photocatalyst layer to cause a photocatalystic reaction.

- 16 (New). A gas processing apparatus according to claim 15, wherein said ventilation member constitutes a meshy member made from metal or plastic.
- 17 (New). A gas processing apparatus according to claim 15, wherein said plurality of photocatalyst fibers are sandwiched in an upper and lower direction with a pair of said ventilation members.

18 (New). A gas processing apparatus according to claim 17, wherein a pair of spacers is attached to the bundled photocatalyst fibers along said pair of ventilation members in a longitudinal direction.--

## **REMARKS**

This Preliminary Amendment is being submitted to claim the subject matter divided out of the parent application pursuant to the Restriction Requirement mailed September 23, 1999. Applicant believes that the claims pending after the entry of this Preliminary Amendment would fall within Group III, drawn to a gas treatment apparatus, classified in Class 422, subclasses 171, 177 and 186.3.

Respectfully submitted,

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